

REMARKS

A. ALLOWABLE SUBJECT MATTER

The Applicants wish to thank the Examiner for indicating that the subject matter of claims 10, 12-15, 18 and 21-25 is allowable (when re-written in independent form).

B. THE SECTION 112 REJECTIONS

Claims 1-25 were rejected under 35 USC § 112, first paragraph. Applicants respectfully disagree and traverse these rejections for at least the following reasons.

Applicants submit that the present specification adequately describes the “with and without regeneration” feature of claim 1. For example, Applicants direct the Examiner’s attention to the specification at, among other locations, page 14, lines 5-21; page 15, lines 26-28; page 17, lines 1-31; and page 21, line 23-page 22, line 2. Further, FIG. 5A depicts no regeneration at branch 22 while regeneration is present at nodes B (branch 71), C (branch 72) and D (branch 21) (see also page 15, lines 26-28).

Accordingly, Applicants request withdrawal of the rejections and allowance of claims 1-25.

C. THE SECTION 102 REJECTIONS

Claims 1, 3, 4, 16, 19, 20 and 34-36 were rejected under 35 USC § 102(b) as being anticipated by an article authored by Kim et al. (“Kim”). Applicants respectfully disagree and traverse these rejections for at least the following reasons.

(i) Claims 1,3,4,16,19,20 and 36

Each of claims 1, 3, 4, 16, 19, 20 and 36 include the feature of, among other things, “engineering a plurality of routes between said source and

destination nodes” where “each route is capable of carrying a signal from the source to the destination node with and without regeneration”.

It is respectfully submitted that Kim does not disclose or suggest the engineering of such routes as in claims 1, 3, 4, 16, 19, 20 and 36.

To support the rejections the Examiner again refers to FIG. 1 of Kim as allegedly disclosing a plurality of routes.

Initially, Applicants note the comments in the “Response To Arguments” section (page 9) of the Final Office Action where the Examiner acknowledges that Fig. 1 only shows a single, not plural, routes. Nonetheless, the Examiner allegedly asserts that the text in Kim describes the generation of a plurality of “fragment vectors” and that these vectors correspond to the claimed “routes”. Applicants respectfully disagree.

Applicants believe that it is evident from a reading of Kim that the fragment vectors discussed therein are used to create a single route at any moment of time. Though a different, single route may be created using different vectors at another, later point in time, this is not akin to the creation of a plurality of routes at any moment in time as in the present invention. Further, it is the Applicants’ position that one of ordinary skill in the art would not equate “fragment vectors” with “routes” as the Examiner appears to have done.

In addition, the claims are directed at the engineering of routes, each of which is capable of carrying a signal from a source to a destination node with and without regeneration while all of Kim’s routes appear to require regeneration. As discussed above, the specification sufficiently supports these claim features and, therefore, the Applicants respectfully submit that the Examiner must consider these features in evaluating the patentability of claims 1, 3, 4, 16, 19, 20 and 36.

(ii) Claims 34 and 35

With regard to claims 34 and 35, Applicants submit that Kim does not disclose or suggest a method for automatically switching and routing a connection over a reconfigurable photonic network which comprises, among

other things, (a) maintaining updated information on status and operation parameters of a bank of wavelength-converter/regenerator devices connected in stand-by at a plurality of switching nodes of a photonic network, (b) investigating the availability of said devices to locate a device based on updated information and (c) switching a device into a communication route according to a current performance parameter of a communication route, as in claims 34 and 35.

(iii) Conclusion

Because Kim fails to disclose each and every feature of the claimed inventions, it cannot provide a basis for a rejection under 35 USC § 102.

Accordingly, Applicants request withdrawal of the pending rejections and allowance of claims 1, 3, 4, 16, 19, 20 and 34-36.

D. THE SECTION 103 REJECTIONS

(i) Claims 2, 5-9, 11, 26-28 and 30

Claims 2, 5-9, 11, 26-28 and 30 were rejected under 35 USC § 103(a) as being unpatentable over an article authored by Banerjee et al. ("Banerjee") in view of Kim. Applicants respectfully disagree and traverse these rejections for at least the following reasons.

Applicants submit that Banerjee and Kim, individually or in combination, fail to suggest the claimed feature of constructing "n" valid link paths to configure 'm' groups of routes corresponding to a respective associated link path, based on current regenerator availability data and the operational parameters of said regenerators, as in claims 2, 5-9 and 11.

The Examiner appears to admit that Banerjee does not disclose or suggest such a feature. The Examiner attempts to overcome this deficiency by relying upon Kim. However, as discussed above with respect to claim 1 (from which claims 2, 5-9 and 11 depend), regardless of whether or not Kim discloses

or suggests such a feature, it has other deficiencies, e.g., Kim does not disclose a plurality of routes.

Further, Banerjee does not make up for the deficiencies in Kim. Banerjee appears to disclose “alternate shortest paths” which have nothing at all to do with the construction of ‘n’ valid link paths used to configure ‘m’ groups of routes as in the claims of the present invention. Rather, the alternate shortest paths are used as part of a linear program formulation that is randomly rounded and used as part of a “graph coloring” technique to minimize the number of wavelengths that are assigned to a given path.

Accordingly, because the subject matter of claims 2, 5-9, 11, 26-28 and 30 would not have been obvious to one of ordinary skill in the art at the time the present application was filed upon reading the disclosures of Banerjee and Kim, Applicants respectfully request withdrawal of the rejections and allowance of these claims.

(ii) Claim 17

Claim 17 was rejected under 35 USC § 103(a) as being unpatentable over Kim. Applicants respectfully disagree and traverse this rejection for at least the following reasons.

Applicants respectfully submit that dependent claim 17 is allowable by virtue of its dependency on allowable independent claim 1 for the reasons set forth above. Accordingly, withdrawal of the rejection and allowance of claim 17 is respectfully requested.

(iii) Claims 29 and 31-33

Claims 29 and 31-33 were rejected under 35 USC § 103(a) as being unpatentable over Kim in view of Banerjee and further in view of an article authored by Jukan et al. (“Jukan”). Applicants respectfully disagree and traverse these rejections for at least the following reasons.

Applicants respectfully submit that dependent claims 29 and 31-33 are allowable by virtue of their dependency on allowable independent claim 26 for

the reasons set forth above. Accordingly, withdrawal of the rejections and allowance of claims 29 and 31-33 is respectfully requested.

(iv) Claim 37

Claim 37 was rejected under 35 USC § 103(a) as being unpatentable over Kim in view of U.S. Patent Application Publication No. 2002/0063915 to Levandovsky et al. ("Levandovsky"). Applicants respectfully disagree and traverse this rejection for at least the following reasons.

Applicants respectfully submit that dependent claim 37 is allowable by virtue of its dependency on allowable independent claim 36 for the reasons set forth above. Accordingly, withdrawal of the rejection and allowance of claim 37 is respectfully requested.

E. ENTRY OF THIS REQUEST FOR RECONSIDERATION AFTER FINAL

Entry of this Request For Reconsideration ("Request") is earnestly solicited because the Request: a) places the application in condition for allowance for the reasons discussed herein; b) does not present any additional claims without canceling a corresponding number of final rejected claims; and c) places the application in better form for appeal, if an appeal is necessary.

CONCLUSION

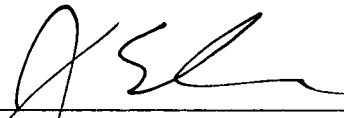
In view of the above, Applicants earnestly request that the Examiner reconsider and withdraw the rejections discussed above and allow all of the pending claims.

Should there be any matters that need to be resolved in the present application, the Examiner is respectfully requested to contact the undersigned at the telephone number listed below.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 50-3777 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,

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